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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,017	10/18/2000	Haruo Kamei	550718.077	4521
27805	7590	10/29/2003	EXAMINER	
THOMPSON HINE L.L.P. 2000 COURTHOUSE PLAZA , N.E. 10 WEST SECOND STREET DAYTON, OH 45402			OJINI, EZIAMARA ANTHONY	
			ART UNIT	PAPER NUMBER
			3723	9
DATE MAILED: 10/29/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/691,017	KAMEI, HARUO CJ
	<b>Examiner</b>	<b>Art Unit</b>
	Anthony Ojini	3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 February 2003.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 7,9,11,13,14 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 7,9,11,13,14 and 16-26 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 October 2000 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following expression "the polishing layer comprises multiple layers; and "wherein a flexible layer comprises an emulsion adhesive, the abrasive particles are attached onto the emulsion adhesive and the emulsion adhesive is subjected to a heating and drying process" and "wherein the polishing layer comprising an emulsion adhesive mixed with abrasive particles is applied to the core and subjected to a heating and drying process" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7,9,11,13,14,16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nokubi et al (EP 0 798 081 A2) in view of Kitajima et al. (5,495,844) and Kimura et al. (4,753,838).

**With respect to claims 7,9,23**, Nokubi et al. (EP 0 798 081 A2) disclose an abrasive material comprising a core (1) and a polishing layer, wherein the polishing layer comprises abrasive particles (2), wherein the core is made of porous synthetic resin and the abrasive particle is in the form of granules (see col. 2, lines 31-39 & fig. 1).

Nokubi et al. fail to disclose wherein the polishing layer comprises a flexible layer formed on the surface of the core and the abrasive.

Kimura et al. disclose a polishing sheet comprising flexible synthetic resin layer sheet (1).

Kitajima et al. disclose an abrasive material comprising a core (10) and a polishing layer (14), wherein the polishing layer comprises a bonding layer made of water-soluble epoxy resin formed on the surface of the core and abrasive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al. with polishing layer comprises a flexible layer formed on the surface of the core and the abrasive in view of Kitajima et al and kimura et al. so as to retain the abrasive particles on the core during polishing process.

**With respect to claims 11,13**, Nokubi et al. fail to disclose wherein the polishing layer comprises multiple layers.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al with the polishing layer comprising multiple layers, since it has been held that mere duplication of the essential

working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

**With respect to claims 14,16,17,18,** Nokubi et al. to fail to disclose wherein a flexible layer comprises an emulsion adhesive, the abrasive particles are attached onto the emulsion adhesive and the emulsion adhesive is subjected to a heating and drying process; and wherein the polishing layer comprising an emulsion adhesive mixed with abrasive particles is applied to the core and subjected to a heating and drying process. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al. with an abrasive material wherein a flexible layer comprises an emulsion adhesive, the abrasive particles are attached onto the emulsion adhesive and the emulsion adhesive is subjected to a heating and drying process; and wherein the polishing layer comprising an emulsion adhesive mixed with abrasive particles is applied to the core and subjected to a heating and drying process, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

**With respect to claims 19, 26,** Nokubi et al. disclose adhesive made selected from synthetic resin (a form of rubber latex), (see col. 4, lines 30-35).

**With respect to claims 20,21,24,** Nokubi et al. fail to disclose the optimum range as claimed by the applicant.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al with the optimum range as claimed by the applicant, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**With respect to claim 22**, Nokubi et al. disclose an abrasive material comprising a plurality of granules having an internal core (1) and an external polishing layer, wherein the polishing layer comprises abrasive particles (2) (see column 2, lines 31-39 & fig. 1). Nokubi et al. fail to disclose wherein the polishing layer comprises a flexible layer formed on the surface of the core and the abrasive, said flexible layer substantially surrounding the internal core.

Kimura et al. disclose a polishing sheet comprising flexible synthetic resin layer sheet (1).

Kitajima et al. disclose an abrasive material comprising a core (10) and a polishing layer (14), wherein the polishing layer comprises a bonding layer (15) made of water-soluble epoxy resin that substantially surrounds the core.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al. with polishing layer comprises a flexible layer substantially surrounding the internal core in view of Kitajima et al and kimura et al. so as to retain the abrasive particles on the core during polishing process.

**With respect to claim 25**, Nokubi et al. fail to disclose emulsion adhesive flexible layer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al. with emulsion adhesive flexible layer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

***Response to Amendment***

Applicant's arguments filed 2/24/03 have been fully considered but they are not persuasive.

**Applicant argues** that European Patent No. 0798081A2 to Nokubi et al. the flexible layer set forth in the claims is not disclosed or suggested in the Nokubi reference. However, Kimura et al. disclose concept of a polishing sheet comprising flexible synthetic resin layer sheet.

**Applicant argues** that U.S. Patent No. 6,251,002 to Close " fails to disclose the abrasive material in the form of granules, the core made from foam resin, the specific size of the core and specific composition of the adhesive. However, Nokubi et al. disclose the concept of abrasive material in the form of granules, the core made from foam resin, and specific composition of the adhesive but fail to disclose the specific size of the core. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Nokubi et al with the optimum range as claimed by the applicant, since it has been held that where the general conditions of a

claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**Applicant argues** that Close "fails to disclose or suggest a porous synthetic foam resin core as set forth in claim 7". However, **Nokubi et al.** disclose a porous synthetic resin core.

**Applicant argues** that Close "fails to disclose or suggest an abrasive material comprising a plurality granules having the claim structure". However, Nokubi et al. disclose an abrasive material comprising a plurality of granules.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ojini whose telephone number is 703 305 3768. The examiner can normally be reached on 7.30 to 5.00 Tuesday-Friday with every other Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 703 308 2687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1148.



AO  
October 27, 2003